Guidance document for processing PM-JAY packages

Rib resection and drainage

Procedure covered: 1

Specialty: General Surgery, Pediatric Surgery

Package name	Procedure name	HBP 1.0 code	HBP 2.0 code	Package price (INR)
Rib Resection & Drainage	Rib Resection & Drainage	S100224	SG078A	14,000/-

ALOS: 5-6 Days

Minimum qualification of the treating doctor:

Essential: MS/DNB/Equivalent (in General Surgery), MCh/DNB/Equivalent (in CTVS, Pediatric Surgery)

Special empanelment criteria/linkage to empanelment module: None

Disclaimer:
For monitoring and administering the claim management process of **Rib Resection & Drainage**, NHA shall be following these guidelines. This document has been prepared for guidance of PROCESSING TEAM and TRANSACTION MANAGEMENT SYSTEM of AB PM-JAY for the claims of procedures mentioned above. The hospitals can also refer to this document so that they have the insight on how the claims will be processed. However, this document doesn't provide any guidance on clinical and therapeutic management of patient. In that respect the hospitals and physicians may refer to any other relevant material as per the extant professional norms.

PART I: GUIDELINES FOR CLINICIANS AND HEALTHCARE PROVIDERS

1.1 Objective:

The purpose of this section is to act as a guidance & a clinical decision support tool for the clinicians in deciding the line of treatment, plan clinical management of patient and decide referral of cases to the appropriate level of care (as required) for treatment of patients under PMJAY and selection of corresponding Health Benefit Package.

It will also serve as a tool for hospitals to determine and submit the mandatory documents required for claiming reimbursement of health benefit package under PMJAY.

1.2 Clinical key pointers:

Empyema is a localized or free collection of purulent material in the pleural space as a result of combination of pleural dead space, culture medium of pleural fluid, and inoculation of bacteria. It is an advanced parapneumonic effusion.

The etiological factors include: pneumonia - viral, bacterial, tubercular, mycotic; postoperative infection; lung abscess; trauma; subphrenic abscess; generalized sepsis; adjacent infections - retropharyngeal or mediastinal abscess; Esophageal perforation; foreign body; cystic fibrosis; endotracheal tumor; instrumentation.

Management

Early empyema can be treated by prompt tube drainage. The fibrinopurulent phase with the development of loculations can be treated by a larger drain and fibrinolysis with DNAase and tPA or by a thoracoscopic washout. If this fails, or in more established empyemas with the development of a cortex, thoracotomy and decortication can usually achieve considerable lung expansion. Rib resection for empyema is therefore reserved for special situations.

The objectives of treatment are to

- control infection,
- drainage of the purulent fluid
- eradication of the sac to prevent chronicity and allow re-expansion of the affected lung to restore function.

The therapy instituted depends on the causative factor, stage of empyema, state of the underlying lung, presence of bronchopleural fistula (BPF) if any, ability to obliterate the space, and the condition of the patient. The treatment needs to be individualized and it depends on the available clinical, radiological, and laboratory evidence. General measures include increase in the protein and fluid intake. Physiotherapy and breathing exercises will help in early re-expansion of the lung following evacuation of the fluid.

Surgical treatment

Surgical treatment is required for chronic empyema, that may be caused by delayed medical attention, inadequate antibiotic therapy, inadequate drainage, presence of foreign body, infliction of postresectional space, and chronic pulmonary infection such as mismanaged tuberculosis. Other causes of ICD failure include improper positioning of tube, improper selection of tube size, inadequate physiotherapy, and presence of BPF. Multiloculated empyema or persistently symptomatic effusion is likely to require surgical intervention.

Rib resection

Indications

1. Failure to cure by aspiration, irrigation or fibrinolysis via an intercostal tube
2. Decortication contraindicated by the patient's age or debilitated state
3. The presence of a bronchopleural or oesophagopleural fistula

Although the incidence for resorting to rib resection has gone down in the past decade or so, still rib resection becomes mandatory to gain adequate access while dealing with the chronic cases. Rib resection becomes necessary if the pus is thick and loculated, or if the patient remains toxic after intercostal tube drainage.

Open drainage

In chronic cases with a regular discharge of thick pus, a wide bore tube may be left in place, open to atmospheric pressure. This is helpful in adolescents with chronic tubercular empyema, in whom the daily output has reduced to approximately 25 ml or so after a prolonged (3-5 weeks) chest tube drainage.

1.3 Mandatory documents- For healthcare providers

Following documents should be uploaded by the concerned hospital staff at the time of pre-authorization and claims submission:

Mandatory document	**Rib Resection & Drainage**
i.At the time of Pre-authorization	
Clinical notes with evaluation findings, indication of procedure, and planned line of management	Yes
X-ray/CT/MRI Chest report	Yes
ii. At the time of claim submission	
Detailed Indoor case papers (ICPs) with treatment details	Yes
Detailed Procedure / operative notes	Yes
Pus culture report	Yes
Post-operative Photographs (optional)	Yes
Histopathological examination (optional)	Yes
Postoperative Chest X-ray	Yes
Detailed discharge summary	Yes

PART II: GUIDELINES FOR PROCESSING TEAM

2.1 **Objective:** To provide guidance to the pre-authorization and claims processing team in ascertaining the medical necessity of procedure carried out vis a vis the patient's medical condition as evidenced by supporting documents/investigation reports etc, in deciding the admissibility and quantum of claim and compliance with mandatory documents by the hospital.

2.2 **Following mandatory documents to be diligently reviewed by the pre-auth / claims processing personnel:**

2.2.1 **At the time of pre-authorization processing- For pre-authorization processing doctor (PPD)**:

a. Clinical notes - detailed history, signs & symptoms, evaluation findings, planned line of treatment, indication for procedure?

b. Did CT/MRI Chest confirm the diagnosis?

2.2.2 At the time of claim processing- For claims processing doctor (CPD):

a. Are the detailed ICPs with daily vitals and treatment details provided?

b. Are the detailed procedure / Operative Notes available?

c. Was imaging indicative of surgery?

d. Was post-operative photograph submitted (optional)?

e. Is the Discharge summary with follow-up advice at the time of discharge submitted?

PART III: GUIDELINES FOR IT

3.1 **Objective:** To enable setting up of cross check mechanisms / rule engines within the IT platform (TMS) to ensure compliance with STGs and to prevent fraud / abuse of the Health Benefit Package.

3.2 Below mentioned are the scenarios where a provision would be built in TMS for pop-ups (PPD):

I. Was the indication for surgery documented? Yes

II. Did the CT/MRI Chest report confirm the diagnosis? Yes

Till the time the functionality is being developed, the processing doctors shall check the above manually.

References

1. Wells F.C., Coonar A.S. (2018) Rib Resection for Empyema. In: Thoracic Surgical Techniques. Springer, Cham. https://doi.org/10.1007/978-3-319-66270-1_19
2. Gupta D K, Sharma S. Management of empyema - Role of a surgeon. J Indian Assoc Pediatr Surg 2005;10:142-6